

Evaluating the Usability of a Newly Created Business Office Website

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Original Prototype: <https://sites.google.com/a/hawaii.edu/business-office-uhmc/>

Prototype 1: <https://sites.google.com/a/hawaii.edu/business-office-unit/>

Final Prototype: <https://sites.google.com/a/hawaii.edu/uh-maui-college-business-office/>

Abstract: In today's high-tech society, there is great demand for a university website to provide guidance and direction for visitors, faculty, staff, and current student stakeholders. Similarly, the University of Hawai'i Maui College (UHMC) Business Office website needs to provide valuable information required for success and smooth operation of day to day services needed by the entire campus community. In particular, there is a need for easy management and clear direction for fiscal transactions such as procurement process and forms, payment protocol, and travel services. The existing 2016 website for UHMC Business Office was incomplete, inaccurate, outdated and unorganized with little or no information. To address these issues, a mock-up Google Site was created. Two rounds of usability studies were conducted with staff from various departments in order to evaluate the website's usefulness, ease of navigation and accessibility to resources and links. The study revealed great feedback and excitement, such as, "Can I use it now?", and great suggestions leading to simplifying information, changing menu bar locations and American Disabilities Act (ADA) compliance in the area of color requirements. There was favorable response indicating great appreciation for an accessible and useful website presence. Updates and improvements were made from the suggestions received, leading to enhancements and upgrades from the original website. This paper will compare the design changes implemented from the original to the final resource website, and discuss the theoretical frameworks and design models that guided design choices.

Introduction

Working as an employee of the University of Hawai'i Maui College (UHMC) since 1991 and in the Office of Vice Chancellor for Administrative Services (VCAS) department since 2000, I am familiar with the access and informational needs of the faculty, staff and students. Our office has conducted an annual faculty and staff survey of services offered by the Business Office and results indicated the need for increased access to resources, training and directional information. This has inspired my interest to develop a convenient way for the Business Office to communicate effectively with the campus community. Shein, a writer for University Business,

states, “User-friendly navigation encourages people to spend more time on the site learning about an institution and its programs.” (2015). The existing 2016 website for the UHMC Business Office was inadequate and unorganized with its units dispersed in odd locations with little or no information. Through the review and guidance of Business Office Subject Matter Experts (SME), a Google Site mock-up website was created as a solution to the campus’ and the Business Office’s necessity to communicate. I have full access, control and ownership of the mock-up website. The goal of designing an efficient and useful website was to provide needed resources, access to information, and guidance for the campus users.

There were many other reasons for the implementation of this project and development of the Business Office website. This office has an important influence on the efficiency and directional support for many layers of the campus community involving procurement, travel, revenue, and payment protocols. Internal direction for faculty and staff account for a good chunk of traffic to a college’s website (Kolowich, 2010). The Business Office has a need to communicate policies, process and procedures to the campus community; provide guidance, links, forms and resources - including training manuals and other useful sites and links; and gather all of these items into one location. Building a personal connection with the college community through this website was the goal towards building a mutual trusting relationship (Rocheleau, 2016). Websites serve as an abundant source of information, enhancing receptiveness and productivity for faculty and staff.

The purpose of the usability study was to evaluate the website’s usefulness, ease of navigation, and accessibility to resources and links for the faculty, staff and prospective/current student stakeholders at UHMC.

Literature Review

Website Importance. Today, websites are key components of an organization’s survival in globalized competition. The website acts as a delivery mechanism for services that facilitate various tasks a stakeholder needs to perform (Mentes & Turan, 2012). The development of an effective and successful university business office website should take into consideration the user’s needs and the information required and not rely on the developer’s or the website owner’s perspective (Qusenbery & Horton, 2013). Doing this creates an effective website, incorporating necessary information users require and are looking for, leading to increased user satisfaction. To improve the learning environment of the higher education community, the primary focus was on engaging the participants in the process of collecting feedback on the effectiveness of the sites ability to provide them with what they were looking for (Kolb, A. & Kolb, D., 2008).

According to Whitney Qusenbery and Sarah Horton, other factors influencing website acceptance and user satisfaction are based on five characteristics of usability. These are: effective, efficient, engaging, error tolerant, and easy to learn. These characteristics help guide the user-centered designing of content positioning in order to meet the goal of user satisfaction (2013). In addition to the characteristics, there are four key requirements pertaining to the definition of usability that must be taken into consideration when designing a website. These are: 1) considering the how and why people need to use the product; 2) evaluation and user

feedback should be taken into consideration; 3) ease of use and the five characteristics of usability; and 4) user-centered design approach (Qusenbery & Horton, 2013).

Usability Study Testing. A website usability study refers to improving it in order for it to work better for its users. The concept of usability also refers to the process of creating a user-centered design, modifying for better usability, observation and testing techniques and the overall philosophy of designing the website in order to meet the user's needs (Nielsen, 2012).

Conducting a usability study to improve the website for its user's is an integral part of this website's development process. Two components of learnability and efficiency are for a user to discover how easy it may be to accomplish a task, or how quickly they are able to perform a task. Also included in the two components of learnability and efficiency are a user's proficiency, satisfaction, and ability of the user to recover from errors which are the components of memorability, satisfaction, and error. Utility is one of the important quality attributes, which refers to the design's functionality, and asking the question: Does it have the qualities that the users need? (Nielsen, 2012). This concept supports providing the user with features they need and providing a pleasant and easy way for those features to be accessed and located.

Think Aloud Protocol Testing. The participants were encouraged to express their thoughts using the *Think Aloud Protocol Testing* while executing set tasks using the website. It was a low cost testing process and the results are close to what is experienced by users. However, a disadvantage of this process is the unnatural environment of speaking aloud for the users (Nielsen, 2012). It is also noted that during the testing some of the participants needed continuous gentle reminders to "think aloud".

Iterative Design Principle. The Iterative Design principle is a cyclic process of prototyping, testing, analyzing, and refining. Iterative Design was conducted, allowing for several cycles of development and refinement of the website. The first round of study was conducted using the original prototype. Problems were analyzed, followed by design refinement and improvement, where problems were eliminated and additional features were enhanced. This cycle was repeated a total of three times resulting in the final design.

All of these processes were used to improve the quality and function of the website design and ultimately make a user friendly, easy to use and efficient Business Office mock-up resource for the campus community.

Project Design and Development

Tool Selection. The selection of Google Sites as the tool to create the mock-up website was due to my previous positive experiences using the program. Google Sites is easy to manage and quick and easy to build. Another reason for choosing Google Sites is that it is currently used by the UH Financial Management system, and also the UHCC Vice President's Office. Both of these valuable websites look great, are easy to navigate, and provide quick and seamless access to links, forms, and information. The limitations I did experience from using this tool was the lack of font choices, bullet choices, image adjustments and lack of animation design features.

The solution I found to some of the limitations was to Google search items needing to be modified, such as the html (hypertext markup language) edit source tool. I was able to find exact instructions to modify tables, create text and picture boxes and add/change fonts.

Existing Website. When the concept of this project began, the old website was simply a shell existing on the UHMC Google Sites that had only the mission statement listed as seen in Figure 1. However, in December 2016, the UHMC Information Technology (IT) webmaster has switched the campus website to the Word Press program.



Figure 1. Actual UHMC Business Office Website dated 4/20/2016

Design and Development of Prototype 1. An initial mock-up Google website was created for Round 1. Its design was kept simple, using the UHMC logo and color scheme. Extensive research was done on “best practices” for university business/fiscal office existing system websites. The UH System sites most used for content were the [UH Financial Management](#) and [UHCC Vice President’s Administrative Affairs](#). These two offices are the driving force behind the UHMC Business Office process, procedures and protocol. Other campus sites researched and used for design and content organization were the [UH Hilo Business Office](#) and John A. Burns School of Medicine [Fiscal and Administrative Affairs Office Word Press blog site](#).

Once the Original Prototype was created from the various “best practices” models mentioned above, subject matter experts (SME) of the UHMC Business Office were interviewed in individual groups. The groupings included: Vice Chancellor for Administrative Services along with the directors of each area; Fiscal Officers; Cashier Office; Accounts Payable and Receivable; Travel; PCard and Revenue Generating Areas. Each of these unit areas SME had extensive suggestions, additional requests, and questions in regards to the existing content, leading to improvements and preparation towards the usability study roll out. The Original Prototype can be seen in Figure 2 and can be found at the following link: <https://sites.google.com/a/hawaii.edu/business-office-uhmc/>.

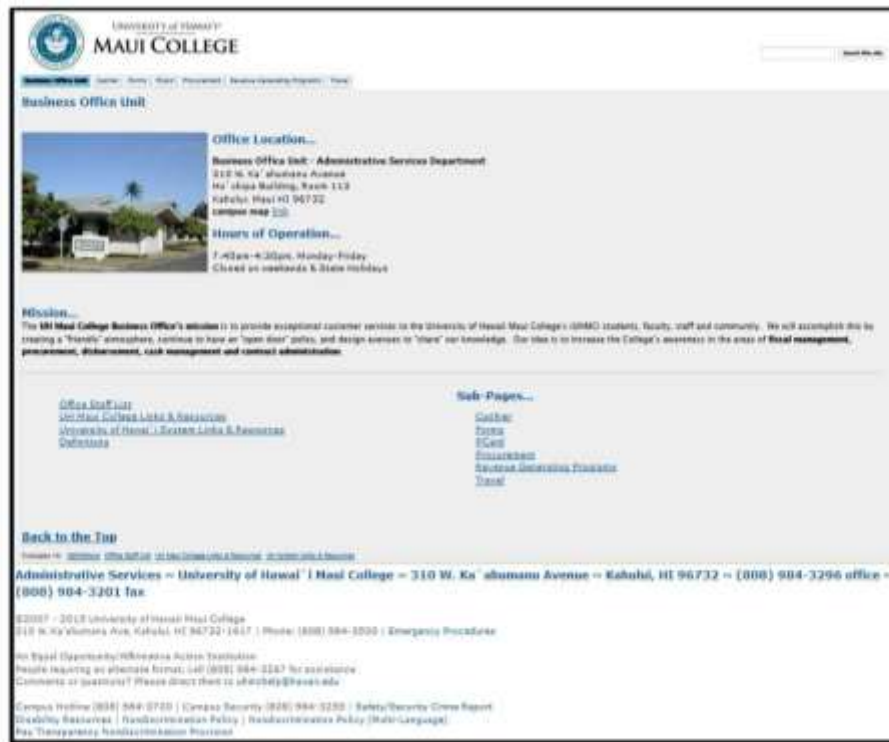


Figure 2. Original Prototype UHMC Business Office Mock-up Website

Methods

Usability Study Method. The usability study was designed using process laid out by Steve Krug's book *Rocket Surgery Made Easy* which is a "do-it-yourself guide to fixing usability problems" (2010). This process addressed the mock-up site's usefulness, ease of navigation and access to needed information and content for the UHMC campus community.

Research Questions. The problem addressed was that the Business Office did not have a clear, organized and effective website presence. To address the problem, a newly organized mock-up website was created.

There were two main focused research questions:

- 1) How easy or difficult was it to locate key features and resources aligned with specific tasks / projects?
- 2) What information or areas were needed that would aid / assist in the ease of the task / job / requirement you need to complete?

Participant Selection Process. The usability study was conducted with staff from eight departments at the UHMC as seen in Table 1. The demographics such as age and education were not asked of the participants due to the anonymous nature of the usability study.

Table 1. *UHMC Campus Department Representation in Alphabetical Order*

Academic Affairs Vice Chancellor's Office
Facilities Maintenance
Financial Aid Office
Human Resources.
Information Services and Technology
Security
Science Technology Engineering and Math (STEM) Department
Student Affairs

There were a total of two male and six female participants. All participants were permanent employees of UHMC. They all had the necessity to access the Business Office resource website often. A participant list was pre-selected by the Business Office management staff, according to the following criteria: 1) current UHMC employee; 2) knowledge in using a computer and the internet; 3) necessity to interact and utilize Business Office services often; and 4) an authorized PCard Participant.

There was an initial list of twelve recommended participants. A phone call was made to each recommended participant, informing them of the study and asking them if they would be interested in volunteering for the project. A phone call usability script (Appendix C) was used as a guideline in accordance with the usability study. Of the twelve recommended participants, only eight volunteered. One declined, and three were not available during the designated target dates for the usability study.

Two usability studies were conducted with four participants interviewed in each study, for a total of eight participants. Research has shown that four or five subjects will detect the majority of usability problems (Nielsen, 2012).

Once a verbal consent was received, and the date and time agreed upon, a confirmation email (Appendix D) was sent to each participant. A consent to participate (Appendix E) in the study was created using the established practice described by Krug (2010).

Usability Study Process. The usability testing was conducted using one-on-one (in-person) interviews. The usability protocol plan (modeled after Krug's usability script) included both the facilitator technology set up plan (Appendix A) and the facilitator script plan (Appendix B). These two sections within the plan provided guidance and consistency for each interview as well as successful flow of the facilitator's process. The interviews were done using Google "Hangouts" via "YouTube live" that allows for screen and voice recording while participants browse freely through the Business Office mock-up website. The participants were logged onto the site, and were asked to begin by screen sharing. They were tasked with design questions, task and scenarios, as well as a post usability study survey.

Task Questions. Included in the Facilitator’s Protocol Script was a set of five specific tasks that each participant were asked to perform while browsing through the mock-up Business Office website. These tasks were created to test the following areas of inquiry: 1) ease of the user to locate informational forms and resource links; and 2) ability of the user to navigate through the site efficiently.

The day before each participant’s interview, the “Task Scenarios” (Appendix F) were emailed to them so they could have a preview of what to expect. A printed copy was provided during the interview for them to follow along with and/or refer to while the interview was conducted.

In order to consistently analyze data from both rounds of interviews, the same five tasks were asked of each participant. The tasks were as follows:

Task 1

This is the homepage of the UHMC Admin Services Business Office unit website. First, I’m going to ask you to give me your initial reaction to this page. Feel free to explore this page as you normally would. You can scroll around with your mouse, but please don’t click on anything just yet.

Task 2

I’m going to give you five minutes to freely explore this website. You may go anywhere you like on the Web site. Please remember to think and speak aloud as you do. I will tell you when the five minutes are up.

Task 3 - Scenario 1

Your department has asked you to purchase a copy machine. The only information you are told is that the machine will cost approximately \$4,500. Using this website, determine whether or not it contains the information you need to assist you with this task.

Task 4 - Scenario 2

You have a purchasing card issued to you by the Business Office. You need to purchase a computer monitor for your office; however, you are unsure whether or not this is an approved purchasing card purchase. Using this website, determine whether or not it contains the information you need to assist you with this task.

Task 5 – Scenario 3

You are required to travel to a neighbor island for a two-day meeting. You will need to access and complete travel documents for this task. Using this website, determine whether or not it contains the information you need to complete your task successfully.

Data Collection. During the usability study interview, an Observation/Interview Sheet was used as a data collection tool (Appendix G). Immediately after the usability study interview, the participant was asked to complete a post-study survey (Appendix H) that was emailed (Appendix I) to them as a link using Google Forms tool. This survey was administered to collect qualitative

and quantitative data in the following areas: opinion on the content provided, content missing, initial reaction, trustworthiness, usefulness, reliability of the web site and design elements.

Equipment and Logistics. The usability study interviews were conducted in a UHMC conference room. The room was equipped with internet access, a large 50” TV monitor for physically viewing the participant’s movements throughout the website, and a power outlet. The facilitator provided the laptop instrument equipped with a mouse for the participant to use in viewing the mock-up website. The study was both voice and screen recorded using YouTube. Each participant’s identity was kept confidential, assigning each an identification number for data analysis purposes.

Timeline. Two rounds of usability interviews including the updates and modifications from each round took a total of four weeks, which is in alignment with the Usability Plan Timeline (Appendix J).

Results

Modifications to Original Prototype. From Round 1 usability interviews, suggestions to improve the website were documented. These included: adding links and resources, improving color schemes and layouts, and providing descriptive information to inform users wisely in making expedient choices when completing tasks they need when using the website. The modifications led to a compliant university system web standard, which included logos, pictures and policies, as well as the ability to manage the project through defining the scope, schedule, expectations and overall organization (Joly, 2006).

A very important design improvement discovered through this usability study process was understanding the Americans with Disabilities Act (ADA) color contrast Level 2 and Level 3 compliance requirements. The colors listed in Figure 3 guided the new choice for both heading and sub-heading color modifications. A Round 1 usability participant stated, “Colors are good, however, I am concerned about ADA requirements for colors.” Upon researching ADA requirements for colors, it was discovered that the original color being used, HEX#3366FF (Appendix K) was both non-compliant in Level 2 and Level 3.


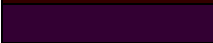


Color	Hex Code	Ratio	Level 2	Level 3
	#330000	18.7	YES	YES
	#330033	18.02	YES	YES
	#330066	15.96	YES	YES
	#330099	13.19	YES	YES

Figure 3. ADA Color Contrast Compliance

Color compliancy is beneficial for those using monochrome monitors, as well as those who are colorblind (Burgstahler, 2002). In compliance with the Web Content Accessibility Guidelines (WCAG), which is a series of web accessibility guidelines published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C, 2008), the sub-heading color chosen to modify the color for all heading and highlighted/link areas was Hex Code #330066,

which is both Level 2 and 3 compliant. The W3C is the main international standards organization for the Internet. They have established a document entitled, *Success Criterion*, which includes the ADA compliance concepts in the subjects of color, font selection and size, placement and background. The intent of this *Success Criterion* is to provide enough contrast between text and its background so that it can be read by people with moderately low vision (W3C, 2008).

The usability study guided the corrections, changes, and additions to the web site. The results included adding missing information and improving the ease of navigation and organization. The suggestions that are the most prominent and important to the success of the site were taken into consideration from the participants, the SME's and Administrators. The modification list along with comments made can be found in Table 2.

Table 2. *Modifications listed with comments made by participants.*

Item# and Modification	Participant's Comments
Item #1 - Remove "Unit" from title	<ul style="list-style-type: none"> The word "unit" might confuse folks to think of the Business Office as an academic program such as "Business Careers" or "Business Technology".
Item #2 - Change colors for ADA compliance and background color; Remove "..." from subheadings	<ul style="list-style-type: none"> Color is nice and easy to read but would be easier if it was on a white background. I'm concerned about ADA color requirements, particularly the colors used for this site. I'm not a fan of the "...".
Item #3 - Correct address duplication in the site footer	<ul style="list-style-type: none"> I like to have the address listed in an address stacked as it is a good copy/paste feature. The address is listed twice in the site footer. Bottom section fonts too big, make it smaller.
Item #4 - Add page description to each page	<ul style="list-style-type: none"> Provide a description of what the page purpose and objective is.
Item #5 - Add subpage links to top paragraph and left side of page	<ul style="list-style-type: none"> Place subpages on left side. Provide the subpage on the left side.
Item #6 - Create columns for office location, hours and mission statement	<ul style="list-style-type: none"> Once description of page purpose and objective was added, information needed to be moved, and columns seemed appropriate for this area.
Item #7 - Place links for homepage, subpage and important resource links in left column of every page	<ul style="list-style-type: none"> Need access to links mostly used often. I always need eTravel and UH Kuali Portal link.

Modifications made to the Original Prototype UHMC Business Office mock-up website from the Round 1 usability interviews can be seen in both Figures 4 and 5. Figure 4 points out three specific areas that were changed according to results from participant interviews.



Figure 4. Original Prototype Modifications Listed as Item #1 Through #3

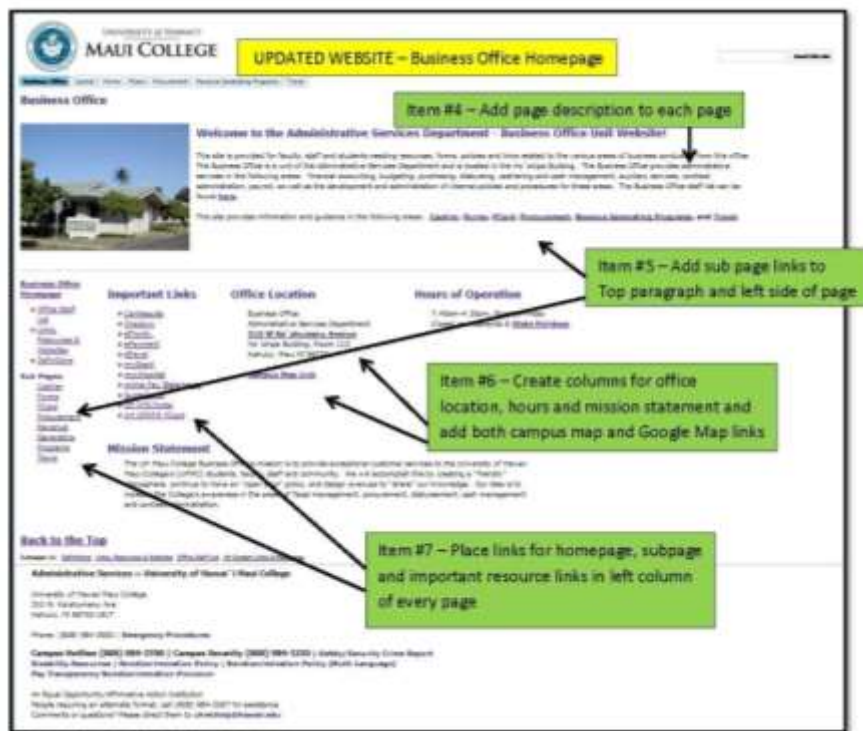


Figure 5. Prototype 1 Modifications Listed as Item # 4 Through # 7

Modifications to Prototype 1. Round 2 results were positive and correlated that the modifications made from Round 1 suggestions substantially improved the website in many ways. User satisfaction was enhanced and can be as seen in the user's responses to the observation question, "What is your overall impression of the website?" seen in the *Word Cloud* (Figure 6).

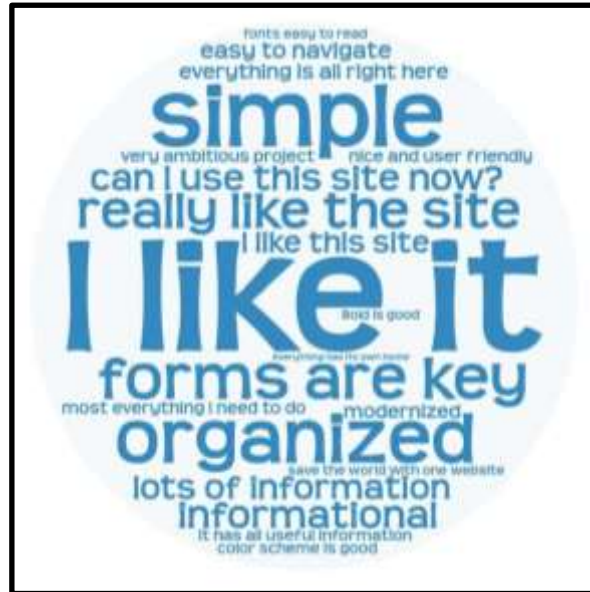


Figure 6. Participants Overall Impression Responses “Word Cloud”

The website used for the Round 2 usability interviews is shown below as Figure 7. The link to Prototype 1, with its revisions is: <https://sites.google.com/a/hawaii.edu/business-office-unit/>



Figure 7. Prototype 1 UHMC Business Office Mock-up Website.

The Round 2 usability study revealed necessary modifications to the website. Most all of the modifications discovered were completed, however, due to time constraints only those changes that were considered a priority were made. A list of the items corrected can be seen in Table 2.

Table 2. *Itemized list of modifications from Round 2 usability interviews.*

Item # and Section Affected	Modification Update
Item #1 - Business Office Homepage	Added Google Maps link to address
Item #2 - Business Office Homepage	Added additional “Important Links”: Directory, UH KFS Portal, UH OPRPM PCard Site, adjust Super quote name to reflect Commerce Point too; enlarge font on every page
Item #3 - Business Office Homepage”	Moved “Campus Hotline” information above the “Equal Opportunity/Affirmative Action section. All BOLD items are links.
Item #4 - Forms Subpage	Repaired PCard forms list links and add PCard phone log form, added Purchasing form 68, 148, 158, Hazardous Procurement, Hazardous Inventory, Telecom Request form, W-9 and add UH OPRPM PCard Site to links.
Item #5 - PCard Subpage	Increase side bar size from 10 to 12, change word “allowable” to “unallowable”
Item #6 - PCard Resource & Links Page	Repair PCard Form links and BOLD all links
Item #6 - Procurement Subpage	Add Commerce Point to all Super Quote titles/links
Item #7 - Travel subpage	Simplify site by moving second paragraph to body below, take out the “Administrative Procedure” paragraph and move it Resources and Forms
Item #8 - Travel Resources and Forms Page	Add more resources and links to Resources and Forms page. BOLD all links.

A screenshot of the modifications for Item #1 through Item #3 can be seen below in Figure 9. The other modifications for Item #4 through Item #8 can be seen in Appendix L.



Figure 9. Final Updated Website Modifications Listed as Item #1 Through #3

There was a noticeable improvement of up to 58% when comparing participants from Round 1 to Round 2 in the observation results for “Ease of Use” in locating information related to the areas of procurement, PCard purchasing and travel. Participants were asked to rate questions according to the following scale: 1) Very Difficult; 2) Difficult; 3) Somehow Difficult; 4) Somehow Easy; 5) Easy; 6) Very Easy.

Specifically, Round 2 participants for task 3 and 4 had an overall 36% increase and task 5 had a larger increase of 58% (Figure 8).

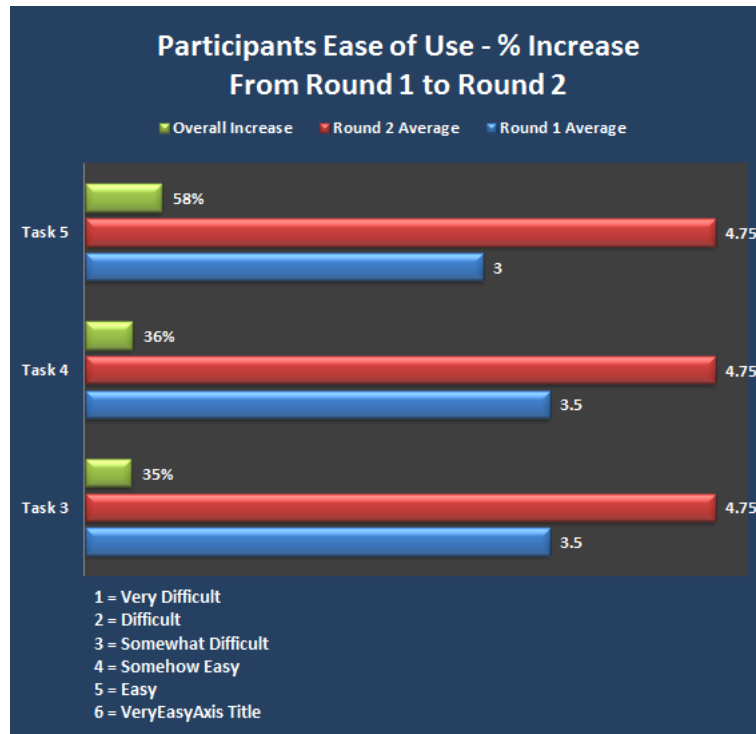


Figure 8. Participants Ease of Use Increase

Conclusion

This study has revealed that the newly created mock-up Business Office website has been modified and updated successfully through the two rounds of usability evaluation interviews. The improved usefulness, ease of navigation and access to needed information from its original concept to the final updated version is significant. The participants from Round 2 were (to a large extent) able to locate the informational forms, resource links and navigate efficiently through the site. Other requests not being completed at this time, but noted for future updates and add-ons are items such as: adding checklists, training videos, more definitions, “how to” PPT presentations, budget reconciliation subpage, pictures and graphics, screenshot samples of travel and procurement sites and forms, and information on toll fees.

The website has become a dynamic source that provides current, appropriate and dependable information. This project has revealed a tool that is able to provide a wealth of information and substantial ability for the Business Office to communicate to the entire campus community all of the pertinent resources, processes, protocol, procedures, links and forms needed for the campus faculty, staff and students to be successful and productive in the many projects and objectives they are tasked to accomplish. The campus has long awaited the creation of a one-stop resource for procurement, travel and cashier needs. The overall impression from the participants (Appendix M) was 100% desire from both Round 1 and Round 2 to use the site immediately. The post-usability study survey (Appendix N) revealed that every participant would both return regularly to the site as well as recommend this site to everyone.

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Appendix A
Usability Protocol Plan – Technology Set Up

**Usability Protocol Plan
Technology Set Up**
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Modified from Usability Script- Rocket Surgery Made Easy © 2010 Steve Krug

1. PREPARE FOR THE TEST

1. A. Software Updates - One week in advance
 1. Search for and update apply all significant software
 2. Confirm Plugin - Ensure the current Google Voice and Video Setup plugins are working
1. B. Equipment Set-up - Day of the test, one hour before the actual test
 1. Day of the test, one hour before
 - A. Computer set up: Attach all cords/peripherals
 1. Plug in to a power outlet (don't trust the battery)
 2. Verify computer internet connection
 3. Verify the microphone is working
 - Ensure the volume is at a reasonable level
 4. Run a test broadcast in Google Hangouts via YouTube Live
 - Verify the test was recorded in your YouTube account
 2. Day of the test, 30 minutes before
 - A. Have your usability technology set-up checklist and protocol plan handy.
 - B. For best results, ensure that you are running the Chrome browser

2. INITIATE THE TEST

2. A. Log in to Google account (UH account has limited access to Google apps, so use *personal account*)
2. B. Facilitator launches the lead Google Hangouts On-air using YouTube Live
 1. Go to Live Streaming Events in Creator Studio in the left navigation bar.
 2. Click New live event.
 3. Select Quick (using Google Hangouts On Air).
 4. Give your live stream a title.
 5. Click Go live now or enter in details to schedule your event for later.
 6. Use Hangouts to broadcast live.

You can use YouTube Live to create a Quick event with Hangouts On Air, or a Custom event using an encoder. Learn how to set up a live stream with [YouTube Live](#). Follow these steps to set up Hangouts On Air with YouTube Live:

 - A. Go to [Live Streaming Events](#) in Creator Studio.
 - B. Click **New live event**.

- C. Select **Quick (using Google Hangouts On Air)**.
 - D. Give your live stream a title.
 - E. Click **Go live now** or enter in details to schedule your event for later.
 - F. Use Hangouts to broadcast live.
 - 2. C. Invite usability study participant
 - 2. D. Start Hangouts OnAir Live Broadcast
 - 2. E. Confirm with study participant that contact with OnAir live broadcast is established.
 - 2. F. Click on Start Broadcasting, once contact with participant has been established.
 - 2. G. Welcome and explain the test to your participant
 - 2. H. Provide link to the website via chat box
 - 2. I. Direct your participant to start screen share and ensure that they share their entire desktop
- 3. CONDUCT THE TEST**
- 3. A. Work through the usability protocol with your participant
 - 3. B. Standby to perform any technical support needed
 - 3. C. Ensure the participant is “thinking aloud” - remind him or her every 45 seconds
- 4. CONCLUDE THE TEST**
- 4. A. Direct your participant to stop Screen share in Google Hangout
 - 4. B. Direct the participant to the Post-Usability Survey asking them to complete it within 24 hours of the study.
 - 4. B. Thank your participant and ask if they have any further questions
 - 4. C. End Google Hangouts OnAir - Click End Broadcast
 - 4. D. Your archived Google Hangout OnAir broadcast is now stored as a video at YouTube Video URL and Video in your Google+ account
- 5. CHECK THE RECORDINGS**
- 5. A. Verify that the videos are available on a YouTube Channel
 - 5. B. Verify that the audio and video are available and intact
 - 5. C. In Video Manager, set the “Privacy settings” to unlisted, which will allow you to give access to the video through a link.

Appendix B
Usability Protocol Plan – Facilitator Script

**Usability Protocol Plan
Facilitator Script**
Angela Gannon
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Modified from Usability Script- Rocket Surgery Made Easy © 2010 Steve Krug

FACILITATOR SCRIPT

- *START the Google Hangouts OnAir Session by clicking on the red button labeled “Start broadcast”*

INTRODUCE PURPOSE OF THE STUDY

My name is Angela Gannon and I’m going to be walking you through this session today.

Before we begin, I have some information for you, and I’m going to be reading it to make sure that I cover everything.

Since you volunteered for this study, you probably already have a good idea of why you are here, but let me go over it again briefly. I have asked several participants to review a newly created Business Office Unit website. I would like to see if it works as intended. The session should take anywhere between 30 to 45 minutes.

The first thing I want to make clear right away is that we’re testing the *site*, not you. You can’t do anything wrong here. In fact, this is probably the one place today where you don’t have to worry about making mistakes.

As you use the site, I’m going to ask you as much as possible to try to think out loud: to say what you’re looking at, what you’re trying to do, what you’re thinking, your feelings, and any questions. This will be a big help to me.

Also, please don’t worry that you’re going to hurt my feelings. I’m doing this to improve the site, so I need to hear your honest reactions.

If you have any questions as I go along, just ask them. I may not be able to answer them right away, since we’re interested in how participants do when they don’t have someone who can help. But if you still have any questions when we’re done I’ll try to answer them then.

The consent for this study to be both screen and audio recorded is in front of you. At this time, I would like to go over it with you and see if you have any questions.

If you agree to participate in this project, please sign and date this signature page and return it to me.

Thank you for doing that, now let's proceed.

QUESTIONS? - JUST ASK

Again, if you have any questions as I go along, just ask them. I may not be able to answer them right away, since we're interested in how people do when they don't have someone sitting next to them to help. But if you still have any questions when we're done I'll try to answer them then. Since our session is only 45 minutes there is no break scheduled, however, should you need one, please let me know and we can pause where we are and begin again when you are ready.

Do you have any questions so far?

Please start "Screen share" by clicking on the "Screen share" icon on your left-hand navigation in the Google Hangouts on Air window.

- *Have participants do a narrative of the website's overall appearance three or four minutes, at most:*

TASK 1

This is the homepage of the UHMC Admin Services Business Office unit website. First, I'm going to ask you to please give me your initial reactions to this page. Feel free to explore this page as you normally would. You can scroll around with your mouse, but please don't click on anything just yet.

- *Facilitator will ask:*
 - Have you ever seen this Web site before?
 - Please give me your initial impressions about the layout of this page and what you think of the colors, graphics, photos, etc.
 - Without clicking on anything yet, please describe the options you see on the home page and what you think they do. Feel free to move around the page, but again I'll ask you not to click on anything right now.
 - Without clicking on anything yet, if you were exploring, what would you click on first?
 - What do you think is the purpose of this site?
 - Who do you think this site is intended for?
 - Whose Web site is this?

Thanks for doing that. You did a great job.

TASK 2

- *Set the timer for 5 minutes.*

I'm going to give you five minutes to freely explore this Web site. You may go anywhere you would like to go on the Web site, but please remember to think and speak aloud as you do so. I will tell you when the five minutes are up.

Thanks for doing that. You did a great job.

If you could, would you please start from the Business Office Unit Homepage?

Now I'm going to ask you to do a few specific tasks. I will read each one out loud.

I'm going to ask you to do these tasks without using any search features.

I will learn a lot more about how well the site works that way. And again, as much as possible, it will help me if you can try to think out loud, speaking as you go along.

- *Allow the user to proceed from one task to the next until you don't feel like it's producing any value or the user becomes very frustrated. Repeat for each task or until time runs out.*

Ok, let's get started. I'm going to give you three scenarios of which each one has a specific task. I'm going to read each one out loud.

Here is the first scenario.

- *Read the first scenario aloud.*
- *Allow the user to proceed until you don't feel like it's producing any value or user becomes very frustrated.*

TASK 3 - SCENARIO 1

Your department has asked you to purchase a copy machine for your department. The only information that you are told is that the type of copy machine they would like you to purchase will cost approximately \$4,500.

Using this Web site, determine whether or not it contains information that would give you directions to assist you with this task.

When you feel you have completed this task, please say so.

- *Note: Participant's task is to search for procurement information that will assist in the purchase of goods valued at \$4,500.*
- *Task difficulty by the subject: Observation/Interview Sheet*

Thank you that was very helpful. I will now read the second scenario.

TASK 4 - SCENARIO 2

You have a purchasing card issued to you by the Business office. You need to purchase a computer monitor for your office from a vendor; however, you are unsure whether or not this is an approved purchasing card purchase.

Using this website, determine whether or not it contains the information you need to know to complete your task.

When you feel you have completed this task, please say so.

- *Note: Participant's task is to find the p-card information pertaining to authorized purchases.*
- *Task difficulty by the subject: Observation/Interview Sheet*

Thank you that was very helpful. I will now read the third scenario.

TASK 5 – SCENARIO 3

You are required to travel to a neighbor island for a two-day meeting. You will need to access and complete travel documents for this task. Using this website, determine whether or not it contains the information you need to complete your task successfully.

When you feel you have completed this task, please say so.

- *Note: Participant's task is to find the travel information pertaining to overnight travel.*
- *Task difficulty by the subject: Observation/Interview Sheet*

Thank you that was very helpful.

We are done with task/scenarios but I have just a few more general questions to ask you.

1. What are your overall impressions of the website?
2. What are the three things you like best about the website?
3. What are the three things you like least about the website?

Now that we're done, do you have any questions for me?

- *Request from the participant that they end their screen share by clicking on the "Screen share" link on their left-hand navigation in the Google Hangouts on Air window.*

I have one last favor to ask. This would be for you to complete a Post-Usability Test Survey. There are only five significant and very important questions that asks for your opinion. I have emailed you the survey link and ask that you take the time to complete it within 24 hours so that the website usability interview is fresh in your mind.

The questions are as follows:

1. If you could make one significant change to this website, what change would you make?
2. Would you return to this website on your own in the future? Why/why not?
3. Are there materials you would like to see added to the website? What are they?
4. Would you recommend this website to a colleague?

5. Please rate on a scale of 1 to 5, 5 be visual design components

Thank you so much for your participation in this usability study. I appreciate you and the time you have volunteered to assist me.

4. CONCLUDE THE TEST

4. A. End Google Hangouts OnAir - Click End Broadcast
4. B. Your archived Google Hangout OnAir broadcast is now stored as a video at YouTube Video URL and Video in your Google+ account

- *Stop the Google Hangout Air Broadcast by clicking on the red button labeled, “end broadcast.”*

5. CHECK THE RECORDINGS

5. A. Verify that the videos are available on your YouTube Channel
5. B. Verify that the audio and video are available and intact
5. C. In Video Manager, set the “Privacy settings” to unlisted, which will allow you to give access to the video through a link.

Appendix C
Usability Script Phone Call

Telephone Call Usability Script to Potential Participant

Hi, this is Angela with Administrative Affairs office.

I am currently a Master's student in the UH Mānoa, College of Education, Online Learning Design and Technology program. As a requirement to graduate, my final project is a Usability Study on a mock-up resource website that I have created for the Business Office Unit. The Usability Study is conducted in order to improve the site for efficiency, resourcefulness and ease of use. Upon completion of this project we plan on implementing the site for the campus use.

I am calling you as you were recommended as a possible participant by the Fiscal Admin Staff. You are in no way obligated to participate. This is strictly voluntary. Criteria to participate are:

1. Current UH Maui College employee
2. Knowledge in using a computer and the internet.
3. The need to interact and utilize the Business Office unit services
4. Authorized PCard Participant

The usability study involves an individual interview with you and will not take more than 45 minutes. It also includes a post-study survey that will be emailed to you as a link and shouldn't take more than 5 minutes. I have two rounds of usability interviews and each round will have four (4) participants. After each round, I will be making changes to the site that will reflect the suggestions I receive from all the participants.

The dates of the two rounds of interviews are:

Round 1: 1/23/17 – 2/3/17

Round 2: 2/6/17 – 2/10/17

Would you be interested, willing and available?

Thank you for your time and interest. I will confirm the date, time and location for your interview via email along with the Consent to Participate in a UH Research Project.

Aloha,

Angela

Appendix D
Confirmation Email

To: Participant
From: Angela

This is to confirm our conversation and your participation in a Usability Study Interview for the evaluation of a newly created website for the Business Office unit. The interview will not take more than 45 minutes.

Your participation in this study is strictly voluntary and at no time will you be tested. Your identity will be kept confidential. I have attached consent to participate for this study for you to review. The study will be both screen and audio recorded. In order for me to collect and analyze the data of the study, I will transcribe the audio portion and make notes of the screen transactions and delete all recordings afterwards.

Please review the consent form and let me know if you have any questions. At the time of the interview we will go over it together as well. I will have a printed copy for you to sign on the day and time of your interview listed below.

Your interview date, time and location are as follows:

Date: Day, Month, Date, Year

Time: hour: minute am/pm

Location: Ho`okipa Conference Room - UH Maui College

After completion of the Interview, I will email you a short post interview survey using that shouldn't take more than 5 minutes to complete.

If you have any questions or concerns, please contact me at the number or email listed below.

Thank you

Appendix E
Consent to Participate Form

Consent to Participate in Research Project:
Evaluating the Usability of the University of Hawai‘i
Maui College Business Office Website

My name is Angela Gannon. I am a graduate student at the University of Hawai‘i at Mānoa in the College of Education. I am doing a usability study as a requirement for earning my graduate degree.

Purpose of the Project: The purpose of my project is to evaluate the ease of use and efficiency of information for a newly created UH Maui College (UHMC) Administrative Services - Business Office unit website. I am asking you to participate because you were recommended by our fiscal office, you meet the computer literacy requirements, you are both familiar with and use the Business Office unit services and you are an authorized PCard owner and user.

Activities and Time Commitment: If you participate in this project, I will meet with you for a 45 minute interview.

ID #: 00x - name
DATE: day, month date, 2017
TIME: hour: minute am/pm
LOCATION: Ho`okipa Conference Room – UH Maui College

Interview questions will include: “How easy or difficult is it to locate key features and resources aligned with specific tasks/projects?” “What information or areas are needed that would aid/assist in the ease of the task/job/requirement you need to complete?”

Only you and I will be present during the interview. I will audio-record the interview so that I can later transcribe and analyze the responses. You will be one of eight participants that I will interview for this study. I will also use a screen recording tool that will record the usability and screen movements. This will allow me to analyze how you navigate through the website during the interview.

The first thing I want to make clear right away is that we’re testing the site, not you. You can’t do anything wrong here. In fact, this is probably the one place where you don’t have to worry about making mistakes.

Benefits and Risks: There will be no direct benefit to you for participating in this interview. The

results of this project may help to improve the Business Office unit website which will benefit faculty, staff and the campus community with the many services that the Business Office unit offers.

There are no risks involved for you to participate in this research project. Should you become stressed or uncomfortable at any time during the interview, you can skip the question or take a break. You can also stop the interview or withdraw from the project altogether without any consequences to you.

Privacy and Confidentiality: I will keep all information in a safe place. Only I will have access to the information. The University of Hawai'i at Mānoa^[1]_{SEP}, College of Education has the right to review research records for this study. Your identity will remain absolutely private. I will assign a number to this interview. After I transcribe the interview, I will erase the screen/audio recordings.

When I report the results of my research project, I will not use your name. I will not use any other personal identifying information that can distinguish you. I will use the assigned number to the interview and report my findings in this way protecting your privacy and confidentiality to the extent allowed by law.

Voluntary Participation: Your participation in this project is completely voluntary. Again, you may stop participating at any time. If you stop being in the study, there will be no penalty or loss to you. Your choice to participate or not participate will not affect your rights to services at the UH Business Office unit.

Questions: If you have any questions about this study, please call or email me at 808-984-3296 or yarnall@hawaii.edu. You may also contact my adviser, Dr. Grace Lin, at gracelin@hawaii.edu. If you have questions about your rights as a research participant, you may contact the University of Hawai'i at Mānoa^[1]_{SEP} College of Education Department Chair, Dr. Curtis Ho at 808.956.7771 or curtis@hawaii.edu.

If you agree to participate in this project, please sign and date this signature page and return it to me.

Please keep the section above for your records.

If you consent to be in this project, please sign the signature section below and return it to me.

Tear or cut here

Signature(s) for Consent:

I give permission to join the research project entitled, "Evaluating the Usability of the University of Hawai'i Maui College Business Office Website"

Please initial next to either "Yes" or "No" to the following:

___ Yes ___ No I consent to be audio-recorded for the interview portion of this research.

___ Yes ___ No I consent to being video-recorded for the interview portion of this research.

Name of Participant (Print): _____

Participant's Signature: _____

Appendix F Task Scenarios

List of Task Scenarios for Usability Study

Task 1

This is the homepage of the UHMC Admin Services Business Office unit website. First, I'm going to ask you to give me your initial reaction to this page. Feel free to explore this page as you normally would. You can scroll around with your mouse, but please don't click on anything just yet.

Task 2

I'm going to give you five minutes to freely explore this website. You may go anywhere you would like on the website, but please remember to think and speak aloud as you do. I will tell you when the five minutes are up.

Task 3 - Scenario 1

Your department has asked you to purchase a copy machine. The only information that you are told is that the machine will cost approximately \$4,500. Using this website, determine whether or not it contains the information you need to assist you with this task.

Task 4 - Scenario 2

You have a purchasing card issued to you by the Business office. You need to purchase a computer monitor for your office; however, you are unsure whether or not this is an approved purchasing card purchase. Using this website, determine whether or not it contains the information you need to assist you with this task.

Task 5 – Scenario 3

You are required to travel to a neighbor island for a two-day meeting. You will need to access and complete travel documents for this task. Using this website, determine whether or not it contains the information you need to complete your task successfully.

Appendix G
Data Collection Tool

Observation/Interview Sheet

Participant's Name: _____ Test date: _____

Starting time: _____ Ending time: _____

____ Check if the consent form has been signed.

Task #1: Initial Reactions

Have you ever seen this Website before? ____ yes ____ no

Please give me your initial impressions about the layout of this page and what you think of the colors, graphics, photos, etc.?

Without clicking on anything yet, please describe the options you see on the home page and what you think they do.

What would you click on first?

What do you think is the purpose of this site?

Who do you think this site is intended for?

Whose website is this?

Other comments

Duration to complete the task: _____ (min)

Task #2: Free to Explore

Where did they venture to?

Duration to complete the task: _____ (min)

Task #3: Scenario 1 Procurement

Steps taken to complete the task

Duration to complete the task: _____ (min)

Task difficulty by the subject:

1	2	3	4	5	6
Very difficult	Difficult	Somehow difficult	Somehow easy	Easy	Very easy

Rationale for the rating

Suggestion to improve this task

Other comments

Task #4: Scenario 2 P-card

Steps taken to complete the task

Duration to complete the task: _____ (min)

Task difficulty by the subject:

1	2	3	4	5	6
Very difficult	Difficult	Somehow difficult	Somehow easy	Easy	Very easy

Rationale for the rating

Suggestion to improve this task

Other comments

Task #5: Scenario 3 Travel

Steps taken to complete the task

Duration to complete the task: _____ (min)

Task difficulty by the subject:

1	2	3	4	5	6
Very difficult	Difficult	Somehow difficult	Somehow easy	Easy	Very easy

Rationale for the rating

Suggestion to improve this task

Other comments

General Questions

1. What are your overall impressions of the website?

2. What are three things you like best about the website?

1. _____

2. _____

3. _____

3. What are the three things you like least about the website?

1. _____

2. _____

3. _____

Post-Usability Survey

Thank you for being a participant in the Business Office Unit Website Usability Study. Now that the Usability Study is completed, I have just six significant and very important questions to ask in order to complete my data collection and feedback from you on the website.

This survey should be completed within 24 hours of completing the Usability Study and should only take 5 minutes to complete. Your feedback is very important to this process and your identity will be kept anonymous.

Now on with the questions..

This form is automatically collecting email addresses for University of Hawaii users. [Change settings](#)

1. If you could make one significant change to this website, what change would you make?

Long answer text

2. Would you return to this website on your own in the future? Why/why not?

Long answer text

3. Are there materials you would like to see added to the website? Which ones?

Long answer text

4. Would you recommend this website to a colleague? To a friend?

Long answer text

5. This section asks for your rating of the websites visual appeal.

Please rate the following areas using a scale of 1 to 5. 1 being disagree and 5 that you agree with the statement being made.

Homepage is attractive.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Neutral
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

Colors used are attractive.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Neutral
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

Typography (lettering, headings, titles) are attractive.

- ☐ 1 - Strongly Disagree
- ☐ 2 - Disagree
- ☐ 3 - Neutral
- ☐ 4 - Agree
- ☐ 5 - Strongly Agree

☐ 1 - Strongly Disagree☐ 2 - Disagree☐ 3 - Neutral☐ 4 - Agree☐ 5 - Strongly Agree

Rectangular Soap

Site has a good balance of graphics versus text.

☐ 1 - Strongly Disagree☐ 2 - Disagree☐ 3 - Neutral☐ 4 - Agree☐ 5 - Strongly Agree

Site design is with "me" in mind.

☐ 1 - Strongly Disagree☐ 2 - Disagree☐ 3 - Neutral☐ 4 - Agree☐ 5 - Strongly Agree

6. If you would like to make any last comments or suggestions, please feel free to do it here!

Long answer text

Thank you again...

Your time and dedication to the process and efforts to improve the University of Hawaii Administrative Services Business Office Unit's website is very much appreciated.

Appendix I
Post Study Survey Email

To: Participant
From: Angela

Thank you for being a participant in the Business Office Unit Website Usability Study. Now that the Usability Study is completed, I have just six significant and very important questions to ask in order to complete my data collection and feedback from you on the website.

This survey should be completed within 24 hours of participating in the Usability Study and should only take 5 minutes to complete. Your feedback is very important to this process and your identity will be kept anonymous.

Thank you for the time you have given for this Usability project!

Now on with the survey, here's the link

https://docs.google.com/a/hawaii.edu/forms/d/1NL1_42D_1ynY7AF63wMTvC49dAepWiv1s25F8rm6mZk/edit

-

Angela Gannon

Appendix J Usability Plan Timeline

Spring 2017 Implementation Timeframe	
FINALIZATION AND DEVELOPMENT OF PROTOCOL (1/9/17 – 1/13/17)	WEEK #1
Meetings and discussion with Business Office Unit subject matter experts in the finalization and development of the mock-up website	
SCREEN PARTICIPANTS AND SCHEDULE TESTING (1/16/17 – 1/20/17)	WEEK #2
<p><i>Screen and Schedule Participants for Usability Study Round 1 – (1/23/17 – 2/3/17)</i></p> <ol style="list-style-type: none"> 1. Contact by phone, the four (4) recommended participants for Usability Study Round 1, screen them for availability and schedule them for an appointment between the dates of 1/23/17 and 2/3/17 <ol style="list-style-type: none"> 1. Current UH Maui College employee 2. Knowledge in using a computer and the internet. 3. The need to interact and utilize the Business Office unit services 4. Authorized PCard Participant 5. Interested and available to be a usability study participant <p><i>Screen and Schedule Participants for Usability Study Round 2 – (2/13/17 – 2/24/17)</i></p> <ol style="list-style-type: none"> 2. Contact by phone, the four (4) recommended participants for Usability Study Round 2, screen them for availability and schedule them for an appointment between the dates of 2/13/17 and 2/24/17 <ol style="list-style-type: none"> 1. Current UH Maui College employee 2. Knowledge in using a computer and the internet. 3. The need to interact and utilize the Business Office unit services 4. Authorized PCard Participant 5. Interested and available to be a usability study participant 3. Confirm by email all eight (8) scheduled participants. 	
USABILITY STUDY ROUND 1 (1/23/17 – 1/27/17)	WEEK #3
<ol style="list-style-type: none"> 1. Meet with a total of four (4) participants in a one-on-one/in-person setting, utilizing two computers, conducting a usability study using the “Google Hangouts on Air via YouTube Live” to record the participant’s actions, while viewing and/or navigating the website. The interview will be both audio and screen recorded. Interview will take a total 45 minutes. 2. Post Survey will be requested from each participant via an online submission using Google Forms document 	
ANALYZE AND REVISE SITE (1/30/17 – 2/3/17)	WEEK #4
Record, review, analyze and revise site for changes, corrections and additions according to feedback received from Round 1 Usability Study and Survey Results	
USABILITY STUDY ROUND 2 (2/6/17 – 2/10/17)	WEEK #5
<ol style="list-style-type: none"> 1. Meet with a total of four (4) participants in a one-on-one/in-person setting, utilizing two computers, conducting a usability study using the “Google Hangouts on Air via YouTube Live” to record the participant’s actions, while viewing and/or navigating the website. The interview will be both audio and screen recorded. Interview will take a total 45 minutes. 2. Post Survey will be requested from each participant via an online submission using Google Forms document 	
ANALYZE AND REVISE SITE (2/13/17 – 2/24/17)	WEEK #6 AND WEEK #7
Record, review, analyze and revise site for changes, corrections and additions according to feedback received from Round 2 Usability Study and Survey Results	
ANALYZE DATA, FINAL REVISION, & COMPLETE FINAL REPORT (2/27/17 – 3/10/17)	WEEK #8 AND WEEK #9
Record, review, analyze and revise usability study final report for changes, corrections and additions according to feedback received from both Round 1 and 2 usability study testing and survey results gathered through Google Forms.	













Appendix K
ADA Level 2 and Level 3 Compliant

Colors that are Level 3 Compliant


Color	Hex Code	Ratio	Level 2 Compliant	Level 3 Compliant
	#330000	18.7	YES	YES
	#330033	18.02	YES	YES
	#330066	15.96	YES	YES
	#330099	13.19	YES	YES
	#3300CC	10.46	YES	YES
	#0000CC	11.15	YES	YES
	#000099	14.29	YES	YES
	#000066	17.61	YES	YES
	#000033	20.16	YES	YES
	#000000	21	YES	YES
	#333300	13.65	YES	YES
	#333333	13.29	YES	YES
	#333366	12.14	YES	YES

Colors that are Non-Compliant

(And should not be used at all)

Color	Hex Code	Ratio	Level 2 Compliant	Level 3 Compliant
	#3366FF	4.70	NO	NO
	#0066FF	4.83	NO	NO
	#339900	3.64	NO	NO
	#339933	3.61	NO	NO
	#339966	3.52	NO	NO
	#339999	3.36	NO	NO
	#3399CC	3.15	NO	NO
	#3399FF	2.91	NO	NO
	#0099FF	2.96	NO	NO
	#0099CC	3.21	NO	NO
	#009999	3.43	NO	NO
	#009966	3.59	NO	NO

Appendix L
Item #4 through Item #8 Modifications



UNIVERSITY OF HAWAII
MAUI COLLEGE

FINAL UPDATED – Forms Sub Page

Business Office | Contact | Forms | PCard | Procurement | Academic Computing Properties | Travel

Forms

Important FORMS

Business Office Materials

- Office Staff
- UH
- UAC
- Admission & Records
- Deferrals

Cashier

Transcript - Mail Ordering
Complete this [Transcript Request form \(pdf\)](#) and mail it to the UHMC Admissions and Records Office with payment by check or money order. Do not send cash via mail.

Transcript - Online Ordering
For an additional \$0.35 processing fee, [order your transcript online](#) through National Student Clearinghouse. Payment is only by debit/credit card (must have a valid email address).

Travel

- [UH-8](#) - Employee Travel Form (annual for non-employees)
- [UH-8B](#) - Multiple
- [UH-8C](#) - Per Diem/Hotel/Lodging Tax Calculation Worksheet
- [UH-8D](#) - Receipt Summary Worksheet
- [UH-8E](#) - Excess Commercial Lodging Expense Certification Form
- [UH-8F](#) - Personal Automobile Receipt Voucher

Purchasing

- [Form 36](#) - Purchase of Meals and Refreshments
- [Form 63](#) - UH Services Contract
- [Form 65](#) - Request for Sole Source
- [Form 68](#) - Information Required for Permit Bid
- [Form 88](#) - Determination of Cost or Price Reasonableness (Non-IFCAs)
- [Form 136](#) - Protocol Purchase
- [Form 144](#) - OPRPM Sole Brand Justification Form
- [Form 148](#) - SuperQuote Exception Form
- [Form 153](#) - Request for Emergency Agreement
- [Form 166](#) - Report of Procurement Violation/Report of Procurement Violation
- [Form 20](#) - International Order (IDO)
- [Hazardous Procurement Form](#)
- [Hazardous Inventory Form](#)
- [Telecom Request Form](#)
- [W-9 Form](#)

PCard Forms

[Form 128](#) - Purchasing Cardholder Information - This is the PCard application for new cardholders. Fill out the personal information and your Fiscal Office will fill out the accounting information, limits, etc.

[Form 181](#) - Memorandum of Understanding - Basic PCard agreement between your Approving Official and UH. Only 1 form per Approving Official is required.

[Form 141](#) - RA/Dept Coordinator Agreement - Basic PCard agreement between your Fiscal Administrator/Dept. Card Coordinator

[Form 142](#) - Cardholder Agreement Form - Basic PCard agreement between the Cardholder and UH

[Phone Order Log](#) - Used to log phone order transactions.

Relocation

- [UH-128](#) - Employee Relocation Allowance Worksheet for W-2 Reporting of Housing Expense
- [UH-129](#) - Relocation Allowance, Receipt, Acknowledgement & Agreement, Statement
- [UH-130](#) - Non-Employee Invoice
- [UH-131](#) - W-9 Statement of Citizenship & Federal Tax Status

Inventory

- [UH-134](#) - Equipment Transfer
- [UH-135](#) - Disposal Application
- [UH-136](#) - Receipt for Temporary Off-Campus Use of University Owned Property
- [UH-137](#) - Report of Loss or Damage of State Property

Sub codes

Sub codes provide a way of organizing the various types of purchases that can be made. The full UH sub code list can be found [here](#).

UH System Websites

- [UH](#)
- [UH Training Site](#) - Technical and Forms
- [UHHR](#) - Reporting tool for UH
- [UHHR](#)
- [UHHR Training Schedule](#)
- [Office of Research Services \(ORS\)](#) - Research Fund Grants
- [Research Corporation of the University of Hawaii \(RCUH\)](#)
- [SuperQuote/Commerce Point](#)
- [UH Foundation](#)
- [UH OPRPM PCard](#) - The University of Hawaii Office of Procurement and Real Property Management (OPRPM) Purchasing Card site.

Item #4 – Repaired all PCard links, added many requested forms: PCard Phone Log, Purchasing Forms 68, 148, 158, Hazardous Procurement and Hazardous Inventory, Telecom Request, and W-9. Added UH OPRPM PCard site to "Important Links"

[Back to the Top](#)

Version: 10 | Updated: 10

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Comments

Angela Gamba

Administrative Services - University of Hawaii | Maui College

University of Hawaii Maui College
310 W. Kalia Avenue
Honolulu, HI 96822-0457

Phone: (808) 984-3300 | Emergency Procedures

Campus Hotline (808) 984-3700 | Campus Security (808) 984-2255 | Safety/Security Crime Report
Disability Resources | Non-Discrimination Policy | Non-Discrimination Policy (Multi-Language)
Pay Transparency Non-Discrimination Provision

An Equal Opportunity/Affirmative Action Institution
People requiring an alternate format, call (808) 984-3367 for assistance.
Comments or questions? Please direct them to uhmhelp@hawaii.edu



PCard

Welcome to the U
College Purchasing Card Website!

The University of Hawaii Purchasing Card (PCard) simplifies procurement of goods and services by allowing the cardholder to exercise purchasing power over their small procurement needs, thereby reducing the time it takes to obtain these goods and services. Responsibility resides with the cardholder to exercise proper use of this purchasing tool in support of the University program, within the guidelines of the University of Hawaii Administrative Policies and Procedures.

This site will provide guidance in the following areas: [Responsibilities](#), [PCard Limits and Allowable Purchases](#), [Receiving Deadlines & Reconciliation](#), [Procurement Resources & Forms](#), [Helpdesk](#), [Contact Us](#). The University of Hawaii Office of Procurement and Real Property Management (OPRPM) has a Purchasing Card site which can be found at the link: [OPRPM PCard](#).

Business Office Home

PCard Features

Office Staff

PCard

Resources & Forms

Helpdesk

Contact Us

PCard Sub Pages:

PCard Features

Responsibilities

Authorized Purchaser

PCard Compliance Policy

Penalties for PCard Violations

Viewing Declined & Current Transaction Activity

Lost PCard/Disputed Transactions

Payments for Non-Employees

Administrative Procedures (AP)

Important Links:

Cardholder

Cardholder

Cardholder

Cardholder

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Cardholder

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Procurement



Welcome to the University of Hawaii Maui College Procurement Website!

This site provides guidelines, resources and information in the following areas: [Purchasing](#); [Training Manuals](#); [References & Tutorials](#); [Policies, Resources & Forms](#); and [Vendor Information](#).

Procurement is the buying, purchasing, renting, leasing, or otherwise acquiring of goods, services, or construction including all tenders that pertain to the obtaining of goods, services, or construction such as description of requirements, selection and solicitation of sources, preparation and award of contracts and all phases of contract administration. Procurement business is conducted using the Kuak Financial System (KFS). KFS is a modular financial accounting system designed to meet the needs of higher education.

Business & Innovation

- Office Staff List
- Links, Resources & Website
- University
- Definitions

Procedural Homage

Publication
Date: 11/20/2007

- Parabronchi
- Trachea
Mucosa,
Submucosa
& Adventitia
- Capillaries,
Arterioles,
Venules

Important

- Certificates
 - sftpkey
 - sfparam
 - sfval
 - LISTS
Node!
 - mcGrant
 - multiNode
 - write.Fav
- Databases
- SuperQuota/Common

Introduction to UH & Kuala Financial System

The **Kuali Financial System Link** provides you with a PDF file format overview and introduction which includes who uses the system, how to log in and out, along with basic features such as detailed searching and their "magnifying glass" search technique. Further training and tutorials can be found [here](#).

The [University of Hawaii Financial System](#) website has many helpful sections such as:

- [Centronics](#)
- [eSentry](#)
- [eSupport](#)
- [eTravel](#)
- [UKFS Portal](#)
- [myKant](#)
- [myEInportal](#)
- [online Pay Statements](#)
- [SuperQuote/Comments](#)

This site also provides extensive resources, training, forms and policies that all University of Texas employees are responsible for adhering to. The following two links are examples of guidance available to the site's users:

Accounts Payable

- [Disbursement Voucher User Guide \(JAFI\)](#)
[Disbursement Voucher User Guide \(Word\)](#)
[Vendor Maintenance](#)

Purchasing

Create a Requisition from SuperCART Award

Methods of Source Selection

The University of Hawaii requires that **purchases** be made utilizing one of the source selection methods. Identifying the proper method will ensure an effective and efficient purchasing process.

- * \$0-\$2,500.00 Electronic quotations via SuperQuote/Commerce Point are recommended but not required. No minimum number of quotes is required.

OVER \$2,500 - Select ONLY ONE method of purchase.

1. SFO Price/Vendors List
2. Exempt
3. Sole Source
4. Request for Qualifications/SuperQuals/Commerce
5. Competitive Sealed Bidding (Invitation for Bid)
6. Competitive Sealed Proposals (Request for Proposals)

Note: Unless exempt by administrative procedure, all purchases utilizing public funds, irrespective of their source, shall be made in accordance with one of the above methods of source selection.

- * \$3,500.01 - < \$50,000 All electronic quotations via SuperQuote/Commerce is required.

- * \$100 or more formally advertised procurement as an Invitation for Bid (IFB) or Request for Proposal (RFP).

Item #6 – Cross reference all SuperQuote with Commerce Point link.

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Add files

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Administrative Services – University of Hawai'i Maui College

University of Hawaii Maui College
310 W. Ka'ahumanu Ave
Kahului, HI 96731-1817

Phone: (800) 804-3500 | Emergency Procedures

Campus Hotline (808) 984-3700 | Campus Security (808) 984-3255 | Safety/Security Crime Report
Disability Resources | Nondiscrimination Policy | Nondiscrimination Policy (Hawaiian Language)
Pay Transparency Nondiscrimination Provision

An Equal Opportunity/Affirmative Action Institution
People requiring an alternate format, call (808) 964-3267 for assistance.
Comments or questions? Please direct them to ahmchelp@hawaii.edu

Travel



Welcome to the Travel site!

This site provides the guidelines, procedures and resources University of Texas users need when preparing travel. This site has the following pages: [Travel Process Guide](#), [Lodging](#), [Transportation](#), [Resources](#), [Forms](#), [FAQ Storyboard](#).

Blumstein, S. 1995.
Harcourt Brace Jovanovich.

- Office Staff List
- Links, Announcements & Initiatives
- Wirecasts
- Definitions

Travel
Horsemen

Travel Sub
Project:

- Thermal stability
- Solubility
- Thermooxidation
- Semiconductivity
- Hall Effect
- Photoconductivity

1. *Journal of the American Medical Association*, 2000; 284: 1039-1044.

- [illegible]

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[illegible]

2

2-ethyl Hex

Contents



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1000

Administrative Services ~ University of Hawaii ~ Maui College

University of Hawaii Maui College
310 W. Kaʻahumanu Ave
Kahului, HI 96732-1617

Phone: (800) 464-3300 | Emergency Procedures

**Campus Hotline (800) 904-3700 | Campus Security (800) 904-3255 | Safety/Security Crime Report
Stability Resources | Nondiscrimination Policy | Nondiscrimination Policy (HUI-Language)
Pay Transparency Nondiscrimination Provision**

An Equal Opportunity/Affirmative Action Institution

People requiring an alternate format, call (808) 954-3267 for assistance.
Comments or questions? Please direct them to uhmshelp@hawaii.edu

eTravel site

- The eTravel site can be found at the following link: <https://www.hawaii.edu/etravel/>
- Formal instructions can be found at the [eTravel Home Page](#)
- eTravel is a system-wide application for online Travel Requests, Advances, and Reimbursements.
- eTravel is a joint project between [Information Technology Services \(ITS\)](#) and the [Financial Management Office \(FMO\)](#), specifically the [Office of Disbursement and Payroll](#).

Travel Office Staff & Location

For help with your travel, contact:

Matthias Ball
(0049)494-1209 (phone)
matth@chemie.uni-erlangen.de (email)
Business Office, Ho'wigs Bldg., Room 113

For help for your extramural grants with [NSF](#) funding contact the OEP Office at 804-3722 or ext 723.

Item #7 – Simplify site by moving second paragraph to body below, and take out "Administrative Procedure" paragraph and move it to Resources and Links. BOLD all links.



00470-0000-0000

Trinity =

Business Office
Humboldt Co.

- **Travel FAQ Storyboard**
- **Travel** site for individuals in **TravelGulf**
- **Profile Application** for those needing to delegate others as a program or fiscal role.
- **PCard Travel Guidelines**
- **2018 Standard Mileage Rates for Business**
- **Most commonly used UH Travel Forms**
- **Most commonly used RCM Travel forms**
- **UH Procurement, Kuali Financial System (KFS) - Firefox, Safari and Chrome are recommended browsers**
- **Kuali Training Site - Individuals and forms**

[Travel Website, FAQs and System:](http://travel.hawaii.edu/stravel/)
<http://travel.hawaii.edu/stravel/>
 Profile System for Travel:
 Arrangement Delegation
<http://travel.hawaii.edu/arrdel/>
 Currency Travel Portal
<http://www.usdoa.com/currency/>
 Policy Governing Travel APN 48-851
http://travel.hawaii.edu/stravel/forms/APN_48851.pdf
 Federal Allowance Rate per Diem Rates
<http://www.usa.gov/federal/compensary/104711>
 State of Hawaii Circular 1007-03
 Update and List of State Travel Providers
<http://www.hawaii.gov/usa-circular/uploads/2042/12/1007-03.pdf>

- **QDSS-04** - Manual Travel Form
- **QDSS-8** - Travel Form
- **QDSS-48** - Multiple Destination/Multiple Rate Worksheet
- **QDSS-4C** - Per Diem/Halt/Lodging Tax Calculation Worksheet
- **QDSS-60** - Recent Summary Worksheet
- **QDSS-8E** - Excess Commercial Lodging Expense Certificate Form
- **QDSS-32** - Personal Automobile Mileage Voucher

- **State of Hawaii Per Diem Rates**
- **Out of State Per Diem Rates**

[Travel Request Advances from
Current RQM Travel Status
Policy on Claims by Car
Share Companies \(New!\)](#)
[Frequently Asked Q&As on
Travel](#)
[Travel Convulsion Report](#)

Item #8 – Add more resources and links.
BOLD all links.

Federal Allowable Rate (FAR) - The maximum allowable rate for per diem (lodging and M&IE) set by the General Services Administration (GSA) for CONUS travel, and by the Department of Defense for OCONUS travel.

Intra-State Travel - Authorized travel within the State of Hawaii which includes inter-island travel (one-day trips where the traveler leaves and returns on the same day, overnight trips on research vessels in Hawaiian waters, and trips that require overnight absence), and on-island travel (travel on the same island that requires overnight absence). "Travel" on the same island not requiring overnight absence, does not qualify as intra-state travel.

Lodging - Allowable expenditure to cover the lodging costs of intra-state and out-of-state travel, where such lodging costs are necessary and reasonable.

Meals & Incidental Expenses (M&IE) - The maximum amount authorized for daily meal and incidental expenses determined by the business destination set by U.S. General Services Administration for CONUS travel and the Department of Defense for OCONUS travel.

Out-of-State Travel - Authorized travel outside the State of Hawaii to the United States (U.S.) and its territories and foreign locations. Some procedural and accounting differences distinguish mainland U.S. travel (CONUS - Continental U.S.) from foreign travel (OCONUS - Outside Continental U.S.), i.e., special per diem rate additional approval requirements, separate subsides, etc.

Per Diem - Allowance for lodging, meals and related incidental expenses. A maximum specified amount for each day of authorized intra-state or out-of-state travel is established by collective bargaining agreements.

20-4441

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Administration Services -- University of Hawaii / Maui College

University of Hawaii Maui College
310 W. Kaʻahumanu Ave
Wahala, HI 96752-1617

Phone: (508) 864-2500 | Emergency Procedures

Campus Hotline (800) 964-3700 | Campus Security (800) 964-3255 | Safety/Security Crime Report
Disability Resources | Nondiscrimination Policy | Nondiscrimination Policy (Mult-Language)
Pay Transparency Nondiscrimination Provision

An Equal Opportunity/Affirmative Action Institution
People requiring an alternate format, call (800) 854-3257 for assistance.
Comments or questions? Please direct them to uhmchinfo@hawaii.edu

Appendix M
First Overall Impression

Participants Comments – First Overall Impression	
●	Really like the site! Forms are key! Can I use this site now?
●	Very ambitious project - save the world in one web site!
●	Nice and user friendly. Color scheme is good, but concerned about uniformity with HR and IT system sites.
●	Like it! Modernized, fonts easy to read, everything has its own home. Bold is good!
●	Organized, simple, and lots of information
●	Informational and everything is all right here!
●	Like it, most everything I need to do, new faculty may need more guidance.
●	Like the site, it has all useful information and easy to navigate.

Appendix N

Post Usability Study Survey Results

Post-Usability Survey - Google Forms

[Edit this form](#)

8 responses

[View all responses](#) [Publish analytics](#)

Summary

1. If you could make one significant change to this website, what change would you make?

Sub pages possibly on the right hand side of webpage

Overall, it was a great, informative site. I would add a list of mostly used forms under the Forms link for easier access.

Add a section for reconciliation of budgets.

more step by step, either in writing or video

add a google map with "flag" to show where Business Office is located on campus

Mix in a little more media (videos, photos) in there with all the text info.

I would relocate or eliminate the redundant information or links on the page.

Change the color, font size or make drop down boxes for each of the heading titles. Make each heading more distinguished.

There are so many heading titles, it's hard to tell where one heading ends and another starts.

2. Would you return to this website on your own in the future? Why/why not?

Yes! I am a self-learner and strive to always submit the most up to date, accurate information to the business office.

Definitely. The site is home to everything we need when dealing with procurement and is easily accessible.

Yes. I like how everything you need for fiscal processes is in one place.

yes! Very often

Yes, to find form fillable forms and to find out phone numbers of business office staff

Yes I would. It has the business office info that I need if ever I come across an issue/question. I would be able to find my answer there.

Yes, because this website has a subpage for the Security Department. I will also return to it when I need forms and resources from the other Administrative Affairs departments.

Yes, very informational with quick access to various websites and links

3. Are there materials you would like to see added to the website? Which ones?

I don't know if I had seen it, but maybe examples of completed forms.

A list of items that are disallowed under pcard use, CommercePoint link

Not that I can think of right now.

links on each page so it is easy to navigate!

Form for Procurement violation...and make sure all forms are form fillable

FAQ section.

I think that I would incorporate more graphics into the website

Online tutorials and hard copy examples of how to's for various procurement transactions in KFS & etravel

4. Would you recommend this website to a colleague? To a friend?

yes both!

Definitely. This would be their (and myself) go to website for policies and procedures, guidelines, and links.

Yes. I would definitely recommend this website.

yes, to everyone who works with these. In fact it will hopefully save time so we dont have to ask each other

yes.

I would recommend this website to both my colleague and friend because it could pertain to them if involved with our campus.

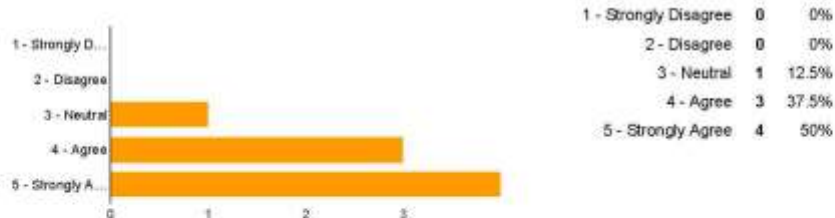
Yes, I would refer them to this website whenever they have questions relating to any of the Administrative Affairs departments.
YES!!!

5. This section asks for your rating of the websites visual appeal.

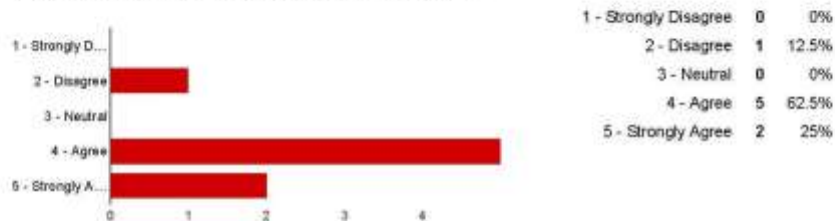
Homepage is attractive.



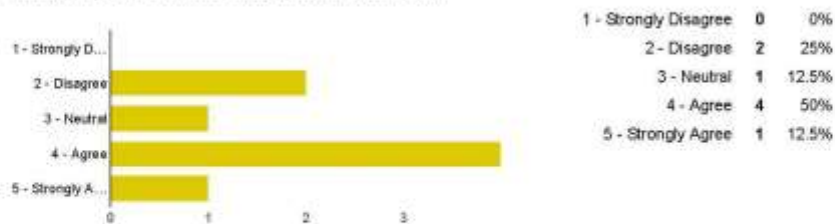
Colors used are attractive.



Typography (lettering, headings, titles) are attractive.



Site has a good balance of graphics versus text.



Site design is with "me" in mind.



2 - Disagree	0	0%
3 - Neutral	2	25%
4 - Agree	2	25%
5 - Strongly Agree	4	50%

6. If you would like to make any last comments or suggestions, please feel free to do it here!

I think having some icon graphics would be more appealing to the eye.

Great job - Can't wait for it to go LIVE!

This site is going to be SO USEFUL! Especially to new employees but also for those of us who don't use certain services very often and need up to date policies, forms, instructions. Can't wait!

nope...the comments made during the "interview" suffice. I look forward to seeing the finished product.

Good job on the website!

I think it's really great that you took on this task to create an Administrative Services webpage. This will be a useful resources for the entire campus community. Great job on what you've done so far.

Great website! Can't wait to use it.

Thank you again...

Number of daily responses

